#25 9-1.00

Paper No. 25

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

APPLICANT : JOHN KOLLAR

APPEAL NO.: 1998-3109
SERIAL NO.: 08/567,564

REHEARING RESPONSE TO BPAI ON BRIEF

CERTIFICATE OF MAILING UNDER 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail in an envelope addressed to ASSISTANT COMMISSIONER OF PATENTS, BOARD OF PATENT APPEALS AND INTERFERENCES, BOX INTERFERENCE Washington, D.C. 20231 on Aug. 30, 2000.

John Kollar — John Kollar 8/30/00

(Name of Registered Rep.) (Signature and Date)

August 30, 2000

Assistant Commissioner for Patents
BOARD OF PATENT APPEALS AND INTERFERENCES
BOX INTERFERENCE
Washington, D.C. 20231

Administrative Patent Judges Warren, Owens and Robinson:

Applicant in the above identified appeal respectfully requests a rehearing under 37 CFR § 1.193(b) and submits this Rehearing Response to BPAI's ON BRIEF in accordance therewith.

Appellant requests an EXPIDITED response in accordance with 37 CFR 1.607(b) "special dispatch" and advises the Board that serious discussions concerning progressing the Redox EG technology in the U.S.A. have been seriously degraded by the uncertainty and prolonged USPTO delays in this DtBP matter. Further delays may irrevocably damage this progress of science which BPAI is Constitutionally obligated to promote.

REHEARING RESPONSE TO BPAI ON BRIEF 6

The Definitive Agreement between Redox and Celanese, for those familiar with commodity chemical innovation, is pure and simple a joint R&D with first plant innovation effort and licensing arrangement which is clearly 100% dedicated to experimental effort directed to achieving commercial utility of a commodity chemical based on traditional equitable risk taken-reward *earned* considerations, whose intentions are absolute and transparent from a straight forward analysis. Appellant emphasizes the italicized word earned, which in no way resembles a § 102 (b) on-sale bar.

The Definite Agreement was established by two exceedingly well informed and knowledgeable parties in the commodity chemical innovation process and about the primary specific input and product components in the Field. Paper 25 Exhibit 1, with more complete information contained herein (p30) verifies appellant as "expert" in "commodity chemical innovations".

The Definite Agreement is a perfect example of "….Progress of Science…", with an incidental goal of pragmatic utility, "commercialization", as set forth in the Constitution of the United States in Article.I. Section.8..

Appellant for reasons of economy of verbiage will bring together for sharp and indisputable focus the on record components for several key topics which are repeatedly pertinent to respond to BPAI ON BRIEF. The compendium of assembled on record facts under each topic should ease the burden on BPAI of repeatedly referencing, cross referencing and multiply cross referencing, for clarification of the topic and easing of the thought process. Under separate parts are assembled, focused and clearly presented the on record evidence for,

I EARNED v SOLD (on-sale)

II PAYMENTS TO REDOX are EXPERIMENTAL OBLIGATION

III PRIMER - COMMODITY CHEMICAL INNOVATION

IV EXPERIMENTAL - SCIENTIFIC EXPERIMENTION

V EQUITABILITY IN INNOVATION RISK TAKEN - REWARD EARNED

VI EXPERIMENTATION EVIDENCE in REQUEST FOR INTERFERENCE

VII SCOPE and NATURE of the INNOVATION EFFORT

'VIII RESPONSE TO OFT REPEATED BPAI "WORDS & PHRASES"

For additional sharp focus, select repeatedly used words by BPAI, often used in complex interdependent maze like fashion will be sharply defined in VIII above and interpreted by Appellant and used by back reference thereafter, unless further explanation is deemed appropriate. We will respond to each of the numerous, frequently diffuse BPAI assumptions, presumptions, inferences, queries and misinterpretations. These when combined with inadequate knowledge breeds a perverse dogmatic position, which Appellant will attempt to overcome and educate BPAI in.

Appellant respectfully suggests to BPAI that they commence with a background primer in commodity chemical innovation, Part III above, such as for EG, which guides the Board through the risk taken-reward earned incorporated in the Definite Agreement, the intent and embedded facts of which will become much clearer.

BPAI constructs an "error based" case on a imaginary § 102 (b) on-sale, mysteriously transformed from on record payments, ¶ 2.3, by Celanese to Redox for Redox cooperative efforts, which are many and unambiguously defined in Parts I and II below. The Board proceeds to build a "house of cards" on this faulty foundation. The removal of the "sale" appendage to any actions of appellant makes these further "house of cards" points irrelevant, but will nevertheless be addressed for completeness, later in this response.

I EARNED v SOLD (on-sale)

BPAI's alleged Redox "sale" to Celanese the "right" to commercialize is defective on multiple counts. The Celanese "right" is

1. only **earned** by progressing the Technology and
2. that "right" is a right to license under one specified term set forth in each part of ¶3.2, under terms set forth in the total licensing section ¶5.

Celanese earns a "right to license" dependent upon the amount earned, from experimental R&D obligations under ¶2.4 and ¶2.3 both of which progress the science of the new Redox EG Technology.

BPAI is WRONG when it states, last line of page 41, "Celanese upon signing this agreement has obtained for itself and its affiliates *at least* this limited "right" to commercialize for consideration of "R&D Phase" payments to Redox, "running royalties"…….

See Part VIII Item 1 below for details on BPAI misinterpretation of "commercialize", which is incidental to the experimental purpose of the Definite Agreement, even in the "Commercial Phase" as confirmed by chemical history and mandated by Article.I. Section.8.

See Part III pp 12 and 13

The BPAI error "upon signing", if taken to the ultimate extreme and even if coupled with another ultimate extreme of the ill intentions of Celanese to obtain such "rights" deceptively, would still be WRONG! Celanese even in this hypothetical extreme, would in fact have experimental EG progressing obligations to expend,

3a. under ¶2.4 minimum expenditures for R&D of at least 60 days as stated in ¶3.2 "by giving 60 days' written notice to Redox." to terminate and

3b. by the plain fact that this document was not signed until 6 to 7 months into the first R&D Year expenditures with a huge Celanese-Redox cooperative effort and contractual intent already demonstarted. This fact is noted by BPAI in BPAI ON BRIEF in line 11 of page 13, but ignored for this purpose. Further

3c. obligations under ¶4.1 are placed on Celanese for patent related matters, several of which were in the preparatory stage and which place additional

3d. obligations of patent transfer on Celanese even after termination.

3e. If the impossible of BPAI contention was possible, the contract would be fraud and illegal on its face,

3f. in addition to fraud, there would be no Quid Pro Quo. Therefore, no contract. Q.E.D.

Even in this hypothetical, all of these BPAI suggested irrational minimum efforts are still directed to progressing the science of the Redox EG. Equitability requires that even minimal efforts earn something minimal. The minimal earned would be "rights to license" under ¶3.2(b)(i) which

would factually be very little and would be commensurate with the assumed contribution to the innovation. Recognize that risk valuation in chemical commodity innovation are comprised of very high risk and low cost for efforts early in the innovative process. As progress is achieved, the risk decreases to very low but the costs increase to high values in the final phase. The "risk value", i.e. risk times dollar expended, of a $1MM in the first R&D year is equivalent to about $ 5-10MM in the Development Phase and about $ 25-75MM in the first plant.

Experimental obligations placed on accepted with demonstrated good and binding intent by Celanese from the Definite Agreement are,

4a. under ¶2.1 cooperate with Redox
conduct research and development and
pilot plant, by end of 5 years, provision for up to 7 years
goal of approval for [first] commercial plant

4b. under ¶2.3 Celanese shall pay to Redox for Redox Obligation.
See Part II PAYMENTS TO REDOX are EXPERIMENTAL OBLIGATION

4c. under ¶2.4 minimum Celanese expenditures for R&D for 5 years, but provisioned for 7 years (for unanticipated difficulties).

4d. Celanese obligations under ¶2.6 Celanese and Redox shall,
a. exchange progress reports in the Field,
b. correspond,
c. discuss and
d. exchange information at meetings etc.

4e. Celanese obligations under ¶2.2 "Celanese shall pay Redox
reasonable .....expenses.....in connection
with Redox cooperative work with Celanese in the Field."

4f. Celanese obligations under ¶4.1 all Celanese Patents and Redox
Patents in the Field..... at the expense of Celanese,
conduct all patent searches,
patent drafting
patent filings
patent prosecution
workings and maintenance of patents in major EG countries.

4g. Celanese obligations under ¶4.1 for patent transfer at Celanese expense.

II PAYMENTS TO REDOX are EXPERIMENTAL OBLIGATION
NOT A BPAI ERROR BASED SALE

The Board is obviously working from a most critical mistake on this most crucial keystone issue of the ¶2.3 payments which are well defined and characterized in the Definite Agreement and which are completely directed to progressing the Redox EG Technology.

The Board ERRONEOUSLY states in BPAI ON BRIEF on page 28, first sentence of the last paragraph,

1. "We find that in *addition* to the R&D Phase payments, Celanese agreed to pay for "cooperative work" by Redox "personnel" as provided in ¶2.2 (page 6)

   BPAI is WRONG only "travel and living expenses"

2. "We find that in *addition* to the R&D Phase payments, Celanese agreed to pay for .....and for "consultation" by appellant, as provided in ¶2.8 (page 8-9)."

   BPAI is WRONG ¶2.8 states "***without*** any compensation"

Section ¶2.3 payments to Redox which are in the $ 100,000 per R&D year range are all clearly for progressing the science of the Redox EG,

1. fund the Redox R&D cooperation as shown in ¶2.1,
2. fund Redox's own R&D effort as shown in ¶2.5,
3. fund Redox effort and activity as shown in ¶2.6,
   a. to exchange progress reports in the Field,
   b. correspond,
   c. discuss and
   d. exchange information at meetings etc.
4. require 30 days per year of appellant consultation for Celanese in the Field "***without*** any compensation by Celanese to Redox or Kollar" (appellant) as shown in ¶2.8.
5. fund cooperative Redox efforts in patent matters as shown in ¶4.1

It is very obvious that these payments are not a sale but are obligations on Redox to continue experimental R&D in its own house, to assist and direct Celanese with experimental R&D in Celanese's house, to assist

Celanese in patent matters which by its very nature must be *experimental* to achieve.

The composition of the Definite Agreement, on direct reading, by one experienced and learned in the world of commodity chemicals, and analysis confirms the above in simple and straightforward language. There is no evidence of a sale or offer for sale. Indeed, the word sale, or any of is multiple synonyms, antonyms or other words suggestive of a § 102 (b) bar are absent, totally absent. Further, there is no evidence of any attempt to obfuscate, deceive, disguise or hide a "sale" under any guise either simple or complex.

Key issues of payments to Redox under ¶2.3 and experimentation versus commercial use which are clearly stated and/or explained in our previous filings will be fortified by presenting the Board with all of the pages of the Definite Agreement, which had previously inked out figures, to help the Board to put these issues and derivative issues to rest.

BPAI's house of cards collapses on itself from the facts presented in the above sections and on BPAI on record errors. Not withstanding the debris, appellant will address and will further correct issues and inferences BPAI derived from their on-sale assumptions, to make absolutely clear the integrity of Celanese and Appellant.

The Definitive Agreement was prepared by Mr Dudley Smith, Head of Licensing for Celanese. Mr. Smith served as President of the Association of American Licensing Agents and led the first US Technology Licensing delegation to enter China in the early 1980's to establish a Technology Exchange between the USA and China.

The Board makes many on record and assumptive errors, many emanating from Board's obvious lack of knowledge in the innovative process for commodity chemicals, which is the progressing of the science, the science of a breakthrough Redox EG commodity chemical process. These Board errors will be presented with on record corrections for BPAI review and reversal.

The duty of the USPTO and BPAI is imbedded in the following obligation from the US Constitution in Article.I. Section.8. which created the USPTO.
"To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their Writings and Discoveries;"

Appellant cannot understand why the documents which have been presented under obligatory oath and presumptive truth as required by law are selectively scrutinized, dissected, taken out of context, contorted and presented as evidence with adversarial sophistry. Appellant cannot understand why this case from the start has not being handle with neutral objectivity required by statute. Appellant cannot understand why BPAI has not used the same standard of scrutiny and diligence to seek out the obvious facts and intent which are present in the Definite Agreement.

Appellant cannot understand why this case from the start at both the Examination and BPAI level has not been handled with "special dispatch" as mandated by law, even after repeated written and telephone requests by appellant. Appellant cannot understand why this case from the start has not been handled with the neutral objectivity required.

Appellant has no objection to scrutiny, but objectivity demands that both sides of an issue be scrutinized with equal fervor, which is plainly evident that BPAI in its unique legal role as judge and juror has not attempted.

We will show, by providing BPAI with a Primer in "Commodity Chemical Innovation" along with compiled key grouping of on record evidence from the original Request for Interference documents and subsequent stronger affirmations, that BPAI is in massive assumptive error, based on BPAI's own errors and failures to recognize contraindicated evidence on the § 102 (b) sale issue in the absolute, as well as confusion and failure to recognized simple on record concepts of Earned Rights and Experimental Obligations and indisputable evidences of same.

With due deference to the BPAI Administrative Judges, it should be pointed out directly that many classes of invention are possible which have a dramatically different profile of achieving innovation, each different profile which has the ultimate Constitution purpose of the USPTO "To promote the Progress of Science……" under Article.I. Section.8.. Indeed, even within the chemical sector there exists a dramatically different profile for achieving innovation. It is absolutely necessary to have at least a broad comprehension of the critical parameters for the specific type of innovation under review.

A fair decision requires understanding and interpretation, understanding and interpretation of the specifics under consideration.

With commodity chemical innovation comprehension in this matter, BPAI uncertainties around many secondary issues for Board affirming a § 102 (b) bar are removed. Derivative from the "on-sale" issue are errors and questionably partial and unfair phraseology by the Examiner and Board in such derivative key areas as non-experimental, wrong assumptions of payments ¶ 2.3, joint development, incomplete [documents], trade secrets, control [of the technology] etc., will be addressed.

Further appellant will provide to BPAI all of the pages of the Definitive Agreement with previously inked out numbers of dollars, to dispel any inquiring minds who may have assumed these payments to be some enriching values which somehow might be suggestive of a sale, numbered years and percents.

The Definite Agreement will be appended as a whole for BPAI benefit to more sharply focus and ease examination by eliminating the otherwise disconnected multiple back document cross-referencing of select pages.

Appellant continues with specifics for the Board comprehension of commodity chemical innovation, its raison d'etre and its obvious progressing of the science of EG. Said layman's primer is a common sense, logic based understanding which requires no technical or legal expertise.

III PRIMER - COMMODITY CHEMICAL INNOVATION

Commodity chemical innovation embraces the total experimental efforts of research, development and first plant successful operation, the required progression of science which eliminates all technical uncertainty and establishes utility. Commercialization is the incidental goal of innovation as it is also the ultimate and incidental goal of "…Progress of Science…" in Article.I. Section.8. of the US Constitution.

Commodity chemicals is the chemical sector under consideration for the Field of this invention of EG. Said sector is characterized as encompassing chemicals used in huge annual volumes and produced at very low cost, typically worldwide volumes of 5 to over 150 billion pound per annum at COP (cost of production) of from 10 to 30 cents per pound and final selling prices at from 20 to 40 cents per pound and when marketed at retail sells at 50 cents to $2 per pound.

Specifically, EG, the core topic of the Definite Agreement, is produced in about 15 billion pound per annum at a COP of about 17 to 22 cents per pound. EG generally sells in the 22 to 30 cents per pound range industrially and sells at retail as auto coolant for about 21 to 54 cents per pound or more familiarly at from $1.99 to $4.99 per gallon.

Contrast a commodity such as EG with a pharmaceutical, wherein the volumes of a specific product rarely reach 1 million pound per annum (aspirin and a few other over the counter products being the exception) and typically produced at a COP of generally from $2 to $20 per pound, which ultimately sells in the $1000's to $10,000's per pound

Consider Viagra sold in 25, 50 and 100 milligram per pill doses, all for about $8/pill. The active ingredient of Viagra, sildenafil on a dollar per pound basis sells at most retail pharmacies at from $ 145,280 down to $ 36,320 per pound.

Consider some randomly chosen patient prescribed pharmaceuticals, which were taken from Drugstore.com for dose and pricing information on August 1, 2000 and note the extremely high cost for each on a per pound of active ingredient basis.

Lamasil	antifungal	250 mg	$ 212.64/30 pills	$ 12,871/pound
Allegra	antihistamine	30 mg	$ 27.62/60 pills	$ 6,966/pound
Celebrex	an NSAID	100 mg	$ 76.36/60 pills	$ 5,777/pound
Lipitor	a statin	10 mg	$ 49.88/30 pills	$ 75,485/pound
Viagra	ED	25, 50, 100 mg	$ 46.28/6 pills	$140,074 to $35,018/#
Sporanox	antifungal	100 mg	$ 173.65/28 pills	$ 28,156/pound

While no direct pricing information is available for doctor/nurse administered pharmaceuticals such as interferon, human growth hormone, Activase, EPO and the like, it is evident based on dosage and antidotal costs that the active ingredients in these and like pharmaceuticals cost to the retail consumer multiple $100,000's to $ millions per pound of active ingredient.

Obviously, in achieving innovation in very low cost commodity chemicals versus extremely expensive pharmaceutical chemicals, something in the innovation process must be drastically different.

Research in achieving a novel, useful patentable chemical reaction to yield final products are vastly different. If ones experience is mainly in expensive non commodity chemicals such as pharmaceuticals or the like, said view of upfront R&D and first plant innovation efforts of the Definite Agreement might appear to be an obfuscation because comparable efforts for expensive non commodity chemicals is the smallest part of those types of innovation. Pharmaceutical types of innovations are most costly downstream in establishing biological efficacy and usefulness.

Succinctly, commodity chemicals demand that experimentation for COP considerations is critical and costly to progress the science and establish utility. For pharmaceutical chemicals, COP is almost totally insignificant. Establishing efficacy in use is critical, extremely costly and the primary source of science.

R&D in commodity chemicals because of its inherent characteristics *"must"* place emphasis on hundreds of elements that are cost related and very little emphasis placed on use characteristics beyond meeting competitive product specifications. All of the research, especially in virgin areas

such as the Redox EG, is experimental and all the development is experimental and indeed the start up stage of a first plant of innovation is frequently experimental within the true scientific meaning.

Chemical history establishes that even at that lowest possible technical risk stage, first plant technical experimentation may still be required to achieve commercialization. Some new chemical processes after full experimental R&D require nil first plant experimentation and proceed to successful commercialization. Others because of inherent process considerations must experimentally establish and provide for solutions achievable only at complete recycle conditions, which are not amenable to experimental verification during R&D, even in the development stage with large but limited recycle pilot planting. Only after proven and established successful startup in the first plant is an innovation complete and commercialization begins.

Lack of resolving expected and/or unknown problem issues in commercial sized first plants results in huge experimental costs in start up, with eventual shut down and a failed plant. Chemical history proves that the chemical landscape is littered with such first plant corpses, which could not experimentally resolve such issues in the "commercial plant sized laboratory".

Consider from chemical history and appellants first hand knowledge of one of appellant's inventions for Halcon, which after an extensive and the most expensive R&D effort ever undertaken by Halcon, was being "commercialized" by Oxirane. That technology, the relatively simple, one step, direct oxidation of ethylene to Ethylene Glycol Process via high selectivity acetoxylation, failed. The about $ 160-180 million EG acetoxylation plant at Channelview, Texas was commercialization at a 800 million pound capacity in about 1979 and after more than a year of commercial plant sized "experimentation" in startup costing about $ 150 - 170 million without a positive resolution, was scrapped for a total final cost of $ 330 million.

Was that Channelview EG plant COMMERCIAL?
Was that Channelview EG plant EXPERIMENTAL?
Could that Channelview EG plant have been both?

The logic of progressing the science of commodity chemicals is simple, albeit difficult in risk analysis. Clearly it is better to resolve scientific uncertainties and define novel and improved patentable features in the experimental research and development phase than in the first plant commercial plant sized phase. In the above example, an extra year of developmental experimentation would have cost possibly $ 3-9 million versus the $ 150-170 on the commercial sized first plant laboratory.

From chemical history, commercial plant sized experimental efforts in innovation which failed to resolve outstanding or newly defined scientific problems resulting in huge experimental startup cost and plant shutdowns or major multi million dollar fixes include;

Mobil	Terephthalic Acid innovation about	mid '70's	FAILED
Bayer	PPS polymer innovation	'80's	FAILED
Amoco	C4 to Maleic Anhydride innovation	'70's	FAILED
Arco	Isocyanate innovation end of '70's "3/4" plant		FAILED
	Commercial Equipment purchased, delivered		
	Binding Auxiliaries and Services Contracts		
	Plant not constructed, late technology error		
Celanese	Vinyl Acetate innovation	'70's	
	Reactor failure due to corrosion	FIX $ MM	
Am Cy	Ti Oxide Chloride innovation	'80's	FAILED
	After several years "commercial" experimentation		
	Am Cy Licensed duPont's Chloride TiO2	FIX $$$$	
Amoco	Terephthalic Acid "Br" innovation	'50's	
	Reactor/Columns corrosion	FIX $$$	
Monsanto	Phenol Process	'60's	FAILED
DuPont	Corfam synthetic leather	'60's	FAILED
DuPont	Benelate agriculture innovation	'90's	FAILED

The above listing is far from complete. Failures are like "old soldiers", they just fade away with the least public attention possible.

The Channelview EG and the other commodity chemical first plant corpses establishes what most in the commodity chemical business know, that even at that "commercial" state many unknowns are present and that

experimentation even at that level is not complete and may be necessary, when experimental pilot plant developmental efforts cannot furnish the answers. Semantic around the word commercial may be misleading when taken without a context. Examiner earlier and now the Board On Brief do not recognize this distinction. Celanese and Redox knew this. Every chemist, chemical engineer and personnel right to top management functioning in the areas of commodity chemical understands this.

The concept of innovation when applied to commodity chemicals embraces the total of research, development and first plant. It is only after the successful technical conclusion of all three parts that technical risk is eliminated and plants may operate without the absolute need (not necessarily desirable for valuable and useful patentable improvements) for further experimentation.

Such is the nature of commodity chemical innovation.

Factually for commodity chemicals, experimental endeavors, the basis for innumerable truly useful patents, which lead to whole cent/s per pound COP improvement are major achievements, tenth/s of a cent improvements are very important and even hundredths of a cent are significant. Why? Multiply these experimental research derived savings by billion/s of pounds to arrive at the cost savings which are usually pure profit. These profits from small savings per unit production are substantial and very important in the commodity industries which cycle with many years of very low to nil profitability for 70-90% of the time to respectable profits during the balance of 10-30% of the time.

For commodity chemicals with all of the cost restrictions, it is obvious that all technical cost related efficiencies are critical, indeed absolutely vital, to achieve utility. Efficiency of raw material consumption, selectivity, even of a 2-10% improvement is substantial and important, frequently patentable, improvement. The classic EO/EG process via oxidation of ethylene to ethylene oxide (EO) followed by hydrolysis to EG has been the subject of experimental research by dozens of corporations for over 60 years. The USPTO's own patent data base is confirmation of this. It must also be recognized that the scientific experimental effort which created each of these numerous "new" patents in

a post innovation commercially established process was probably accompanied by 10 to 100 comparable scientific experimental efforts which were unsuccessful and led to no new or improved science or patentable material. Experimental effort does not equate to success.

Ongoing silver catalyst, process variables etc. experimental research in the old EO/EG process for ethylene oxidation for over 60 years by many companies has achieved very slow but steady selectivity improvements on ethylene from about 60 mole % to the current about 77 mole %. These are small changes valued at 2-4 cents per pound of EG achieved over 60 years with thousands of man-years of experimental research. Said total improvements are currently valued at $300 to $600 million per annum worldwide from these raw material selectivity improvements.

Ongoing experimental hydrolysis research on EO to EG in the old EG process for over 60 years by dozens of companies has in the past several years finally achieved selectivity improvements from about 90 mole % to about 97 mole %. This change is not a raw material efficiency improvement, it is a marketing change which produces EG instead of DEG (diethylene glycol) and TEG (triethylene glycol) which are less marketable products. EG versus DEG and TEG is also valued at perhaps up to .1 to .3 cent per pound of EG higher. This hydrolysis objective has been recognized for over 60 years, with unknown but substantial man-years of experimental research. Said total improvements may currently be valued at up to $15 to $45 million per annum worldwide, with a much eased marketing problem.

Novelty in producing EG at a COP of $1 to $5 per pound, at a cost akin to a low-end pharmaceutical, is both technically easy and absolutely not useful. When absolute restrictions of raw material costs, utilities consumption, plant capital, manpower etc. are removed, novel chemical synthesis becomes simple.

PHARMACEUTICAL

For pharmaceuticals the innovation process has a vastly different set of parameters wherein the production of the pharmaceutical chemical has the least restrictions and wherein its production costs even if doubled or tripled or quadrupled is without significance. It matters not whether

the active chemical is produced at an 80% or 60% selectivity on the raw materials employed. It matters not whether the active chemical need 2 cents or 10 cents of utilities per pound to produce. It matters not whether the active chemical is produced in a 10-liter reactor or a 100-liter reactor, the capital for production is inconsequential. It matters not whether the active chemical is produced batch wise or continuous. It matters not whether the active chemical is produced without recycle of chemically unconsumed raw materials when the manual batch reprocessing cost would exceed their raw material value. They are simply incinerated without recovery, the cost is inconsequential.

The high cost and critical component of pharmaceutical innovation is in establishing the therapeutic efficacy of the chemical. Even as the patent protection afforded the composition of matter and synthesis of such is vitally important to establish a protected proprietary business position, quite simply it becomes extremely useful and valuable only when clinical efficacy is established. The novel compositions and/or synthesis are valueless and without utility when therapeutic efficacy can not be established.

IV EXPERIMENTAL - SCIENTIFIC EXPERIMENTION

The Definite Agreement by its contained language and topic/s in the Field clearly establish that a scientific endeavor is involved. With a simple astute string of logic in documentation on record, it becomes apparent that a massive scientific experimental effort, not a non experimental development effort as would be required for a second, third, fourth or tenth post innovation plant of an existing established chemical process, is involved.

The Definite Agreement in 22 pages of content shouts out loud the general experimental purpose of the document which has 40 uses of the phrase **"R&D"** and **"research and development"**, many experiment inferring words such as **"patent/s"**, **"hereafter developed"** and **"hereafter filed"**, a provision for up to 7 years of an R&D effort, albeit a best estimate of the highly inestimable duration was 3 to 5 years with provision for the additional years.

Some of the highly specific proofs of experimentation on record with some now being entered as supplementary information reside in,

1. the actual values of Celanese obligation for minimum funding in various innovation Phases from the Definite Agreement,

¶2.4 the specific annual dollar amounts for 5+ R&D years,

¶2.3 payments to Redox for cooperative R&D obligations, in 2 below

¶2.1 Celanese obligations for R&D, including pilot plant and first plant (See commodity chem. innovation III Primer) all of which are obviously *experimental*.

2. in the *experimental* obligations of Redox shown in The Definitive Agreement in ¶2.1, ¶2.5, ¶2.6, ¶2.8 and ¶4.1,

¶2.1 Redox R&D cooperation,

¶2.5 Redox's own R&D effort,

¶2.6 Redox effort and activity [all with Celanese]
exchange progress reports
correspond, discuss and exchange information
meetings, all for R&D Phase.

¶2.6 Redox effort/activity as above "shall continue into the Commercial Phase, for two years after start up ....."
Note: Appellant history is all research oriented.
See Primer, "*experimental*" nature of a first plant"

¶2.8 up to 30 days per year of consultation by Kollar for Celanese in the Field "without any compensation by Celanese to Redox or Kollar"

¶4.1 cooperative Redox efforts in patent matters.

3. in the definitions which anticipate new Celanese and Redox Technology and Celanese and Redox Patents as shown by the word/s "or hereafter developed", "hereafter filed" in ¶1.7, ¶1.8, ¶1.9 and ¶1.10

4. in the filing and/or issuance of the following 4 U.S. Patents USP 4,337,371, USP 4,393,252, USP 4,414,084, USP 4,412,085, on record in Exhibit B para 3 of Request for Interference, and equivalents in Canada, Mexico, Great Britain, Netherlands, France, Germany, Belgium, Switzerland, Norway, Sweden, Australia, New Zealand,

China (Taiwan), South Korea, Japan and the Soviet Union, all in the Field of the Definite Agreement.

5. the BPAI suggested *non experimental* nature is defective on a reality of commodity chemical innovation basis, provided in III Primer.
6. ***experimental progress*** in the DtBP (pages 16 line 1 and 2, and on page 29 starting on line 7 through 11 of BPAI ON BRIEF) is evidenced by the document submitted to Celanese personnel in a meeting on January 21, 1983 entitled "REDOX TECHNOLOGIES INCORPORATED January 21, 1983 Meeting"(Kollar Declaration Exhibit "5"). Specifically on the record states "…further embodiments of my…." And "As part of an ongoing cooperative effort between Redox and Celanese……" which establishes ongoing experimentation and progress, which BPAI ignores.

   Said Exhibit "5" document states "Major Areas of Research" then lists 4 such telling areas of research, including the 4th listed "Alkylation of tBHP with tBA". Further list "Major Conclusions" including the last two paragraphs directed to "the production of DtBP appears to be quite practical." **EXPERIMENTAL PROGRESS!**

   Minimal scrutiny, with minimal interpretive power of one skilled in the art would evoke the general experimental nature of each topic and that the listing is likely presented in an order of some kind of priority and that the specific range of experimental activities covers:

   a. the core EG forming reactions in the first listed,
   b. a potential Fe problem which could carry into further innovation efforts including a "Commercial Scale operation". Being red flagged before pilot plant for monitoring during recycle operation for dozens of reasons, including to make certain that this does not emerge as a problem in a first plant. (See III Primer)
   c. A blue sky alternative radical source with no coproduct production baggage. Instead of a peroxide even DtBP.

d. Two rudimentary, but important DtBP improvements, about which BPAI's characterization is WRONG. Further see under Part VI Exhibit "5" below.

7. ¶2.6 the obligations of meeting [R&D] between Redox-Celanese coupled with Item 6, directly above confirms the *experimental* basis of these meetings which were in fact scheduled at about 3 month intervals. This was the only meeting which had any DtBP relevancy.

BPAI does correctly infer the existence of additional Meetings (BPAI ON BRIEF p 49 last line), but conveniently ignores them and the logic of their *experimental* content, as shown above.

8. The primer for chemical innovation which places in direct simple logical layman context the progressing and establishment of utility in the science of commodity chemicals.

9. The obligation for first plant. See Primer for the *experimental* nature of a first plant.

V EQUITABILITY IN INNOVATION RISK TAKEN - REWARD EARNED

The Redox EG, even at a very preliminary stage was recognized to be risk valued (relative risk multiplied by dollars expended) at $ 200-300 Million or more. Indeed, Celanese accepted the principle that an equivalent Celanese risk valued contribution would equate to Celanese taking on the balance of the further funding of the R&D onto the completion of the innovation process including a first plant with all of the recognized experimental needs. This is taken as a Celanese obligation to earn rights in the Field. At full completion of obligations, the fully defined rights to license under specified terms become earned. At various partial completion of obligations commensurate various partial rights to license under equitable terms become earned.

The Definitive Agreement in ¶2.1, ¶2.5, ¶2.6, ¶2.8 and ¶4.1 deals with defined, partially defined and undefined payments and obligations, all of which become part of the obligations of Celanese along with much important Celanese in-house expertise to achieve an equivalent risk valued contribution to Redox's already achieved risk valued contribution. For Celanese this contribution was expected to amount to $ 200-250 Million, comprised of about $ 30-40 million for R&D and about $ 150-200 million for a first commercial plant to complete the innovation. Values in 1980-1985 dollars.

There can be no doubt of this equivalent risk valuation for both Redox and Celanese in the Definite Agreement, especially when one recognizes that Redox is a very small entity with no leverage of any kind on a major corporation such as Celanese.

All Celanese "rights", whether to full completion or at earlier termination of the Definite Agreement are *earned* "rights" by progressing the Technology and those "rights" are to *license* under the licensing section ¶5, from ¶5.1 through ¶5.13.

Reward

Equitability requires that equivalent risk assumed earns an equivalent reward. The Definitive Agreement achieved equitability of reward, by licensing and cross licensing by both parties of Technology and Patents of each party developed in the Field, for each innovation cooperating party by selected geographic exclusivity, with each party receiving equivalent cross royalty licensing so that each party would share at least some royalty reward from the other party's' efforts. Risk Value is simply a risk factor multiplied by $ input.

For the lay person, risk value has the same properties which explain why 1 hour work input is valued differently e.g. a senior law partner may earn $2,000 per hour while a law clerk may earn $ 35 per hour.

TABLE I Risk Taken and Reward Earned

State of Progress	Celanese Risk Approx. Cost	Celanese Risk Risk Value	Celanese Earned Reward
Definitive Agree.	1980 $ MM (Million)		
Innovation Totals	$ 225 MM	$ 325 MM	About 50:50
1st Plant	$ 175 MM	$ 200 MM	N. America Excl. Crossed Royalty
From ¶3.2			
(a) After Pilot Plant	$ 25-35 MM	$35-50 MM	a. No Exclusivity b. Preferred Royalty @ 150% above c. 40 % share of 3rd party Royalty d.No Royalty ex Redox
(b) Pre Pilot Plant	Total $ Minimums	Total Risk Value*	
(v) for 5 yrs.	$ 9.1 MM	$ 25.0 MM	After pilot but no c.
(iv) for 4 yrs.	$ 6.2 MM	$ 20.0 MM	Above with b. @ 175%
(iii) for 3 yrs.	$ 4.0 MM	$ 16.0 MM	Above with b. @ 200%
(ii) for 2 yrs.	$ 2.3 MM	$ 12.5 MM	Above with b. @ 225%
(i) for 1 yr.	$ 1.0 MM	$ 7.5 MM	Above with b. @ 250%

* $MM X Risk Factor

What Celanese "earned", not bought, falls into the (b)(iii) category above, which is effectively unquantifiable. A licensing agreement for commodity chemicals must detail at least the specifics for two additional components, a licensing fee and the duration of royalty. Without those specific defined reward values, the reward value of what Celanese is alleged, by BPAI, to have bought is merely the "good intentions" of Redox. Since it remains with Redox to set the licensing fee and duration, Redox can easily disengage from said obligations as exemplified below.

ARCO granted to both Texaco and BASF a right to license propylene oxide (PO) technology which appellant discovered as an employee of Halcon, if they shut down their respective old chlorohydrin PO facilities and purchased PO from ARCO for 7 years. Both did and after 7 years sought to license the PO technology. ARCO demanded preposterous "extortion type" licensing terms which were rejected by both. Q.E.D.

VI EXPERIMENTATION EVIDENCE in REQUEST FOR INTERFERENCE

From the on record Request for Interference filing, there is a plethora of evidence of the *experimental* nature of the undertaking which is embedded in these early on record documents which Examiner and now the Board arbitrarily choose to ignore. Further, understand that establishing "priority of reduction to practice" and a direct placement link to ARCO was the focus of these interference seeking documents and not establishing the *experimental* nature of the Field or DtBP embodiment.

Exhibit "B" paragraph 3
"These methods of producing EG which utilize DtBP are patented in the United States as Patents Nos, 4,337,371; 4,393,252; 4,412,084 and 4,412,085." These are some of proofs of the experimental nature of the Definite Agreement.

Exhibit "4"
Page 1, is a cover sheet entitled "Redox II Design and Economics Update" prepared by Celanese with a circulation list of 46 people at 5 separate locations and 14 Uniterm classifications. "Update" elicits some kind of advance in the Technology such as can only be derived from *experimental* R&D. Clearly, some kind of massive activity, such as a major *experimental* innovation, effort is involved.

Page 2, contrasts Redox II EG updates and a R&D target case. Both "update" and "R&D target" elicit new information and objectives derived from *experimental* efforts.

Pages 3 to end of Exhibit 4, is 1 of 13 Section which preliminarily quantifies the economic aspects of producing DtBP by transformation of

Redox DtBP design basis, derived from Exhibit "2" the first reduction to practice without a solvent, shown in the last 5 pages of Exhibit 3.

Both of these DtBP documents may appear to be absolute final designs for DtBP production to the uninitiated such as the BPAI appears to be. In fact their purpose is the accumulation of fundamental design properties of materials under consideration and the construction of an economic cost model by taking all of the known physical and thermodynamic properties and any best available chemical reaction parameters.

The best available chemical reaction parameters for DtBP production was indeed based on Exhibit 2, appellants first reduction to practice without diluents. For progressing commodity chemical innovation, economic considerations are a vital component, for detecting and pinpointing deficiencies, focusing R&D, and planning and directing future efforts to establish utility, as detailed previously (See III Primer) and verified by the USPTO data base in very old commercial processes with new patents.

DtBP experimental information was not ready for patenting from a priority or technical basis. Indeed, the examination of DtBP production was never even attempted by Celanese in over 3 years of cooperative effort, because it was far down the list of technical, manpower and funding priorities, as it was also for Redox.

BPAI's characterization that these are evidence of commercialization and *not experimental* are obviously wrong in light of commodity chemical innovation (See III Primer) and the facts.

BPAI may be misled by the obvious professional presentation of the above. Indeed, such design and economic factors can and are the norm, frequently constructed for "black box" unknowns taking as many known chemical and physical properties, known factors and some "guestimates" to determine the range of important costs of consumptions, capital, utilities etc. associated with the unknown. The informations thusly obtained are vitally important considerations for progressing any commodity chemical innovation, lest a given "black box" has no known or reasonable projected resolution. It is a tool and basis to help define technical

deficiencies and target *experimental* efforts to progress the technology to its maximum utility.

Appellant with many decades of experience in commodity chemical innovation recognizes these "show stoppers" and only proceeds to achieve large corporate involvement when preliminary, rudimentary, not ready for patenting experiments are confirmed to fully define a Field with no known absolute road blocks to potential achievability.

Exhibit "5"

Corroborative evidence for the interference entitled "January 21, 1983 Meeting" is also absolute evidence of *experimentation* which BPAI chooses to ignore with an error based assumption. Said reference lists "Major Areas of Research" with "Major Conclusions", the last of which is comprised of two preliminary DtBP advances which "appears to be quite practical" for progressing the Technology. See specifics below.

The first three listed items with sub classifications are clearly *experimental* and furthermore are indicative of priorities in the Redox Celanese cooperative innovation efforts. See Part IV Item 6

Even at this state of the Request for Interference with only the first page of the Definite Agreement offered in evidence to extend the chain of linkage to ARCO, there is an obvious inference that if there is one Dated Meeting dedicated to *experimental* issues in the innovation, about 2 1/2 years after the agreement, something must have occurred in the interim, such as other meetings. Subsequent submission of the balance of the Definite Agreement to Examiner confirm this. BPAI does in fact make the inference of additional Meetings (BPAI ON BRIEF p 49 last line). BPAI conveniently ignores the *experimental* content contained therein in the Field as well as the *experimental* progress in the DtBP science, albeit rudimentary. BPAI fails to follow through on the BPAI inference and logical conclusion that other meetings which were required by the Definite Agreement would be held and contain similar experimental content.

Research Meeting were in fact held, at about 3 month intervals, in accordance with the agreement to address newly developed *experimental* information, plan for future *experimentation* and progession of the Redox EG Technology.

BPAI characterization is twice WRONG for the two preliminary DtBP advances which "appears to be quite practical" for progressing the Field. The direct use of tBA is an advancement which has the potential of eliminating dehydration to isobutylene, thereby eliminating one block of the 13 blocks in the Redox EG Process and its capital cost as well as capital associated with isobutylene recovery and utilities for both. Methanol and ethanol are not, as BPAI assumed, alkylating alcohols in this reaction. Methanol and ethanol are close boiling components to tBA. To purify tBA to a 99% concentration would be costly (See Primer chemical commodity reference). To obtain an impure form of tBA with methanol and ethanol in process is very low cost and its direct use has substantial techno-economic merit, a critical component to progress the Redox EG science. The effective use of tBA and of a "crude" tBA are two definite improvements and progress of the undertaking in the Definite Agreement, albeit both were rudimentary single experiments which were not ready for patenting. So much for that "obvious to one skilled in the art" non technical legalese.

A multitude of considerations, exemplified by the above, exist in any major commodity chemical breakthrough Technology such as the Redox EG which must be identified and resolved before the Redox EG can be progressed to a state of true utitilty. There is also a logical progression of priorities

The Field is comprised of at least five reactions in the Field, none of which is a perfect reaction of 100% conversion at 100% selectivity without any impurities, byproducts or residues. Each reaction produces a multitude of impurities, byproducts, residues and corrosions. Any of these from any of the five reactions can profoundly influence the downstream and product quality considerations and can only be determined by *experimental* verification through a variety of *experimental* techniques from simulation to complete multiple integrated recycles. The negative impacts can be so small or so subtle that they only emerge in the first

commercial sized plant, a tremendously expensive piece of *experimental* equipment. Fe from attrition and/or corrosion such as the second listed area of research is one such potential problem from many recognized by one experienced and truly (not legal) skilled in the art. Further see above in Part IV Item 6.

Exhibit "6"

From The ARCO Confidence Agreement Last page, last item, Item H
These items by their very nature could not have evolved from the disclosure recipient, ARCO. They had to have evolved from Redox.

"H. A listing of all United States and foreign patents and……." suggests that something *experimental* must have been going on with Celanese.

Exhibit "7"

In context of Part III Primer, this is the accumulation of DtBP relevant physical and chemical information derived from chemical literature along with reaction parameters derived from Exhibit 2, the first rudimentary reduction to practice of the invention without solvent, for inclusion into the professional looking presentation of Block 2, which is constructed for design and economic considerations of DtBP production. These functions are mandatory requirements to achieve progress in the Redox EG innovation and is indeed a part of *experimental* effort, for assessment of those achieved in the past to establish a base and for those *experimental* efforts planned for in the future for logical progress reasons and indeed for unanticipated purposes.

VII SCOPE and NATURE of the INNOVATION EFFORT

Any research through innovation and license agreement, such as the Definite Agreement, dealing with all of the imponderables of new breakthrough chemical technology, starts from a base of many great and multifaceted technical uncertainties, which are not known and can only become known in the fullness of time after extensive experimental efforts. These issues must be dealt with and clarified as best as the

uncertainties permit. The definition of the magnitude expressed in estimated dollar and hundred of man-years of effort are on record.

Just a minutiae of impartial scrutiny from on record documents establishes this fact. The definition of the Field in ¶1.1 with 5 subparts is obviously not some simple, brief undertaking. Part ¶1.1 and indeed each of the subpart A to E elicits a complex undertaking. An innovation effort detailed in ¶2 from ¶2.1 through ¶2.8 with provisions of up to 7 R&D years in Definite Agreement, the 40 times used R&D, research and development words, with key words such as "hereafter developed", "hereafter filed", "patent/s" etc. is plain and transparent to all, except those who choose not to see. "Commercial Phase" which Examiner and now BPAI choose to play semantic with are known to those with experience in innovation to recognize the experimental nature of a first plant. All efforts leading there and contained in the first commercial plant are experimental science. (See III Primer)

For BPAI benefit, appellant will step back in time to the autumn of 1979 when the events surrounding the Field commenced and Celanese, extremely knowledgeable in raw material and product of the Field and appellants well established and recognized reputation in several innovations, vigorously pursued Redox's methanol based breakthrough innovation.

Chronologically,

October, 1979 issue of Chemical Engineering in "Chementator" section
First information of methanol to EG. (Redox I)

October, 1979 Celanese Aggressive Pursuit (self evident)

Oct. 23, 1979 Dated Confidence Agreement between Celanese and Redox
Paper 25 Exhibit 2

Oct. 25, 1979 Letter Pilat to Kollar Paper 25 Exhibit 3
Topics included,
Signed secrecy agreement (Confidence Agreement)
Disclosure "final documents" in preparation
Disclosure fee.
Attitudes about appellant and "serious interest"

Oct. 29, 1979 Letter(carbon copy)Kollar to Pilat Paper 25 Exhibit 4
Confirming Nov. 2, 1979 Meeting - Summit NJ Celanese Facility
Present hastily prepared Disclosure

May 7, 1980 Meeting to establish a Definite Agreement Paper 25 Exhibit 5
July 15, 1980 Draft Heads of Agreement, first page only to indicate the author of first draft prepared by DBS (Dudley Smith) with Redox attorney second draft. Combined with following.
July 1, 1980 Heads of Agreement signed July 31. Paper 25 Exhibit 6
Note: Item E. Redox II (a dramatic advance on Redox I)
Dec. 22, 1980 Definite Agreement signed by Redox Paper 25 Exhibit 7
Jan. 7, 1981 Signed by Celanese with no ink outs

All of the above Exhibits, most which were requested by BPAI inquisition are appended. A Nov. 2, 1979 Disclosure Agreement could not be found, but its true essence is established in Exhibits 3 and 4.

The Definite Agreement is clearly established "To promote the Progress of Science……", the science of the Redox EG by experimentally establishing the technical, economic and practical viability of every single component/s of its 13 major sections, which must then be experimentally orchestrated, usually in a pilot plant to detect and resolve any of the innumerable problems which may arise from industrial grade materials, impurities created in processing in the various reaction sections (at least 5 in this case), recycle streams with their multitude of created but not predictable problems, corrosion, etc., etc. and finally to complete innovation in the first experimental plant for problems unforeseen and not detected in pilot plant.

This has been on record in many documents expressed in many ways from the simple statement in Exhibit B paragraph 6, of the Request for Interference, which my attorney at the time replaced (because he felt it was too wordy) from my submission to him. Appellant original submission was put on record in January 17, 1998 (mistakenly referred by BPAI as March 17, 1998) Paper No. "10" as EXHIBIT 1. This has been on record in Paper "10" page 9 at midpoint of 2nd full paragraph and on page 11 starting with the last sentence. Both of these references begin with "Factually, there are 13 major sections……" and proceed to conclusions.

Specifics of DtBP production in the scheme of the 13 Blocks of the Redox EG Process is small and low in priority. See above in Part IV Item 6 and also above Part VI Exhibit "5" and Exhibit "4". The only critical aspect

of DtBP production was that it not be a "show stopper" which might otherwise doom the entire EG project.

That fact was demonstrated by appellant in the rudimentary first reduction to practice without a solvent shown in Request for Interference Exhibit "3".

BPAI characterization of the DtBP invention as a "trade secret" is wrong. It was and is a part of a work in progress whose technical priority was far down on the list of priorities. It was maintained confidential, awaiting funding and movement up the priority chain of the massive Redox EG effort. It was an invention not ready for patenting. In the big picture of the Redox EG Process with 13 Blocks (major sections), Block 2 DtBP was low on a priority basis in the total of the innovation.

On the legal issue of public disclosure and subsequent "obvious to one skilled in the art"

Celanese was and still is under obligation of confidentiality until 2005 and therefore could not have under any circumstances exposed the DtBP invention. Even BPAI's extreme presumptive assumptions which were for "others properly given access…" is "for at least 15 years" a qualified statement which is not independent of Redox control which would have been at least as long as Celanese's obligation. Even that lowest minimal hypothetical 15 year expiry, would have taken said obligation to at least 15 years after execution of the Definite Agreement which would be January 17, 1996 before hypothetical exposure of the DtBP invention. Clearly, there was no public exposure of the DtBP invention.

What is this Definitive Agreement based upon? One must understand the evolution of a major breakthrough innovation such as the Redox EG Process before one can make assessments and pass judgments. See Part III Primer. This is not a simple incremental invention process as those described above for the old EG process which transpired over 60 years. It is a complex of 13 sections with at least 5 separate reaction sections in the entire EG Process. Hundreds of man-years are required to bring such an invention to commercial fruition.

The underlying principle of the Definitive Agreement is that shared risk in progressing the innovation process (in conformity with Article.I. Section.8.) is equitably entitled to earned rewards emanating from the innovation.

It must be emphasized that the inventions covered by the Definite Agreement emanated from the appellant who is a single inventor, a one man operating corporation with limited resources which require major funding and manpower to progress and complete the Redox EG innovation at a cost of about $200-250 Million.

Appellant has a unique history and understanding of breakthrough technological innovation. Appellant is the sole inventor of three commercialized breakthrough technologies, which include the comparably complex PO-tBA-MtBE and PO-Styrene Processes and the relatively simple Ethylene Glycol Process via high selectivity acetoxylation which failed in a $ 330 million Channelview Texas "commercialization" after about a year of commercial sized experimentation in startup.

Appellant is the sole inventor of several other breakthrough technologies which progressed along the comparable innovation pathway, but which for different reasons did not reach the first commercial plant phase. Further appellant as Director of Chemical R&D for Halcon was involved in several other technology innovations not of his origination. Two were successful, several were not. One innovation for acetic anhydride was commercialized by Tennessee Eastman, a second technically successful one was aborted by the failure of the acetoxylation process for EG.

Chemical history has demonstrated that major technical-economic chemical breakthroughs such as that manifest in the Field are about a once in a decade occurrence.

Those in the petrochemical commodities business understand that even with a research cost of $2-600 million there are no guarantees and even Halcon the "most inventive chemical company of the '50's, '60's" and clones fails to achieve such a breakthrough from 1975 onward. Indeed, Halcon, Exxon Ventures and Chem Systems have expired as research organizations.

A plethora of considerations must be taken and addressed about a vast number of possibilities for such a complex undertaking , even though so much remains unknown about the technology. Only the uninformed could characterize these efforts as commercial. Despite the experimental efforts of numerous scientists, the landscape of chemical innovation is littered with such first chemical plant corpses.

To point out the foolhardy assumption that some small payment might constitute a "buy" resides in the potential of the Redox EG Process. The benefits of the Redox EG technology are immense in reducing greenhouse gases, providing massive economic value and in exploiting stranded natural gas (the cleanest energy source).

The Redox based process produces EG at a dramatically lower price than conventional ethylene based technology. The current market size of EG is 15 Billion pounds per annum growing at a 5-6 % per annum rate. EG market projections suggest that one 900 million pound plant per year will be required. In a 5 year time frame after commercial implimentation the savings in Redox methanol based EG would exceed the total savings that emanated from over 60 years and thousands of man-years of experimental R&D effort on the ethylene based EO/EG.

The USPTO constitutional mandate is "To promote the Progress of Science…….". Our "founding fathers" if nothing were pragmatists. Advancement did not mean discover and set aside in some ivory tower. For the pragmatist advancement means to utilize for the benefits it can create for man. For the pragmatist, utilize means to ultimately commercialize. It does not mean play the game of semantics and sophistry about the word "commercial".

As inventors we do Constitutionally and diligently "Progress the Science…". We ask that BPAI as judge and jury to become informed and fairly and impartially follow their Constitutional mandate "To promote…..."

VIII RESPONSE TO OFT REPEATED BPAI "WORDS & PHRASES"

1. BPAI's "commercialize"

From the US Constitution in Article.I. Section.8. "To promote the Progress of Science…….", is incorporated the mandate of the USPTO "To promote…" and the objectives "…the Progress of Science…" USPTO is required to facilitate. The objectives are fully met by the content and intent of the Definite Agreement.

The intent and facts embedded in the Definite Agreement prove beyond any doubt that experimentation is the prime and essential purpose in the research phase, in the development phase and in the first plant commercial phase and that commercialization is incidental to the objectives of progressing the multi reaction step Redox EG which defines the Field. See Part I 4a to 4g which define the experimental obligations of Celanese and Part II 3rd paragraph items 1 to 5 which defines the experimental obligation of Redox, all are on record.

These are clearly derived from cooperative efforts to progress the science of the Redox EG by each party contributing their respective but different talents and resources and assuming equivalent risk value (financial and effort input). These inputs run the gamut of from the most scientifically challenging talents and expertise in chemistry from the highly theoretical to sophisticated practical aspects of chemistry, analytical chemistry, chemical engineering and at least a dozen different support professions. The inputs also include exiting appropriate assets and expertise of each party. The projected duration for the progression of the Field is clearly defined and indicative of the complexity of the undertaking.

BPAI misinterprets the term "Commercial Phase" and/or BPAI implied "right" to commercialize. BPAI fails to recognize that the first commercial sized plant is first and foremost an experimental stage which must be successfully achieved to complete innovation before "commercialization" in the BPAI used sense can begin. Innovation is comprised of three stages. The 1st stage of experimental activity encompasses research, with traditional emphasis on chemistry. The 2nd

stage is development, with traditional emphasis on experimental chemical engineering. The 3rd stage is first plant operation with its unknown level of required experimentation.

See Part III, especially on **pages 12 and 13** for verification of failed first plants which were not able to experimentally resolve previously unidentified problems. It is only after the completion of these three phases that progress has been achieved for the final incidental purpose of this Definite Agreement which is indeed the ultimate and incidental purpose of the progress of science, "commercialization".

Clearly, the intent and facts are 100% consistent with Article.I. Section.8. of the US Constitution, the USPTO mandate "To promote the Progress of Science……."

The framers of the Constitution, the "founding fathers" if nothing were pragmatists. Advancement did not mean discover and set aside in some ivory tower. For the pragmatist advancement means to utilize it for the benefits it can create for mankind. How can benefits be created for man without commercialization? For the pragmatist, utilize means to ultimately commercialize. It does not mean play the game of semantics about the word "commercial". In this action the BPAI fails its mandate and chooses to deploy sophisms, fails to scrutinize impartially and create delays which frustrates and indeed runs counter to the USPTO mandate.

A "chicken or egg first" analogy is embedded in BPAI's "limited "right" to commercialize" a first plant which by its nature has an experimental component. You cannot get to commercialize until you achieve the experimental unknowns in the first plant. Realistically, one cannot commercialize without a research and development experimentation phase in a commodity chemical innovation, most especially and absolutely for a multi reaction step complex innovation as the Redox EG, unless one is stupid beyond words and/or doesn't know what to do with several hundreds of millions of dollars over and above the about $150-200 million cost of the first plant.

If Celanese were free to commercialize and did so successfully, they would in fact have achieved the objective of experimentally progressing the science of the Redox EG but would not have earned any additional rights such as they [Celanese] would have earned from the Definite Agreement. SMART!

See Page 32 2nd paragraph on page 43 See from start of page 44.

1. (b) BPAI's " deemed it necessary"

BPAI characterization from page 28 paragraph 1, from page 43 line 1 and elsewhere, "but only to the extent that Celanese deemed it necessary to so experiment" is first incorrect and then it is both taken out of context and confirms BPAI's lack of knowledge about commodity chemical innovation. See Part III.

Examine the statement in context from ¶2.1

"Celanese, with the cooperation of Redox, shall conduct such research and development (R&D) in the Field, and shall pilot such step or steps as Celanese deems advisable, with a goal to achieving,……."

"Deems advisable" is not the same as BPAI's "deemed it necessary". Advisable, proper to be advised. Advise, to give counsel to.

The above phrase has limitations which are logical. The obligation to conduct research and development in the Field is not subject to Celanese choice. Celanese choice is limited to only pilot [plant] operations of only a step or steps Celanese deems advisable. This is a logical choice based on the fact that select steps in the Field are already commercially proven and may not require much or any further efforts.

Celanese was already an established producer and consumer of methanol and formaldehyde the two reactant which produce EG the product in the Field. Celanese was already an established producer of EG as a licensee of the "Shell EO/EG" via ethylene oxidation over a silver catalyst. Celanese was already a consumer of EG for production of PET (polyethylene terephthalate) fiber.

Celanese was already extremely knowledgeable in the key areas of methanol, formaldehyde and EG above production and numerous processing

capabilities. Many areas of Celanese existing expertise could possibly have applicability to certain step/s in the Field. The precise areas of direct applicability of Celanese expertise cannot be predetermined in an entirely new setting. Clearly, the formaldehyde block, another 1 of the 13 total in the Field, could be one step that Celanese did not deem advisable to pilot. Blocks in the Field dealing with methanol recovery and formaldehyde recovery could be two addition steps which Celanese did not deem advisable to pilot. Celanese possessed expertise in EG distillation and purification for fiber grade EG (90% of all EG produced goes into PET) and these two steps could be additional steps which Celanese did not deem advisable to pilot. Redox has expertise in isobutane oxidation to tBHP which was practiced commercially with about 6 billion per year capacity which Celanese could have deemed as not advisable to pilot, perhaps choosing to license.

Innovation has a technical risk-reward assessment that balances experimental costs and time, which as both increase generally increase technical probability of first plant commercial success but at delayed commercial fruition. There are no absolutes in determining the balances, although it is generally recognized that the more complex the technology, the greater the experimental effort required.

The Field with 13 blocks is complex and not amenable to short cuts such as is possible in production plant research efforts which are typically small incremental inventions for an existing process. Only the foolhearty would proceed from research to a commercial plant in the Field, without at least pilot planting all major unknowns. From research to commercial is hardly advisable, hardly with [wise] counsel.

2. "trade secret"

Redox has maintained material not ready for patenting as confidential work in progress awaiting funding and manpower resources and priority, not as trade secrets.

See Part VII 6th to 8th paragraph,

See Part IV Item 6 and

See Part VI Exhibit 4 4th paragraph and Exhibit 5 2nd and 4th paragraph.

3. "possession and/or ownership"

BPAI attempts to create an erroneous impression about possession and/or ownership. There is no evidence that Celanese has possession of cited documents. These documents were and are the property of Redox and in the possession of Redox. See the ownership of the patents developed during the Definite Agreement, on record in Request for Interference Exhibit "B" paragraph 3 and in Part IV, item 4 which details comparable foreign filings. (Note: One US Patent was USPTO mistakenly "assigned" to Celanese, probably because the patent attorney handling the case was a Celanese attorney, which would show on front page, but was corrected to Redox as an addendum.)

4. BPAI's adversarial "negative presentations" and out of "context"

Appellant believes that BPAI engages in far too many adversarial techniques, such as establishing a negative followed by words suggesting that appellant has not or cannot establish to the contrary.

Any learned persons understands that a negative cannot be proved, so why is this adversarial technique employed by BPAI. Appellant believes that use of such adversarial techniques creating negative aspersions is questionable and improper for BPAI in their role of judge and juror.

Appellant believes that word or phrases taken out of context and then placed near or next to negative commentary is also adversarial and improper for BPAI in their role of judge and juror.

We all have seen movie ads for a terrible movie with a critic's attribution proclaiming "Remarkable", when the critic had actually said "…. remarkable in its ("stupidity or amateurish presentation)…"

DIRECT RESPONSES TO BPAI'S ON BRIEF AND COMMENTS

For reasons of economy and sake of completeness, Appellant will now respond to BPAI specific comments, references, inferences etc. in BPAI's ON BRIEF, by referencing the BPAI ON BRIEF page, paragraph, line, or parenthesized word/s as the topic being considered and responding with Appellant's collection of pertinent on record evidence/s in the above

focused Part I to VIII and where more focused by reference to subparts of same. Where appropriate these responses will be supplemented with additional material. Issues will be addressed in order presented by BPAI and not in order of importance.

Page 2
We respectfully disagree with BPAI, we do not believe that BPAI rationale under 37CFR 196(6)(1997) constitutes a new ground and that BPAI is required to rule on record presented by Examiner.

Page 5
First words should read Paper No. 10, not Paper No. 11.

Page 7 in 1st full sentence
"When BPAI states "Accordingly, the record of this appeal has been developed solely by appellant and **it is obviously incomplete.**" Why does BPAI appear to be playing to the next level of the legal process to suggest a lack of appellant cooperation and fails to cite anything that is relevant to the issues which has not been explained as such. Appellant has in fact provided all relevant as well as much irrelevant materials because of the request/s of Examiner.

Page 7 in 2nd full sentence, first part
BPAI takes out of context and selectively chooses prejudicial words suggestive of Redox hiding, omitting or withholding of pertinent information. Why does BPAI state, " **We observe, in this respect, that appellant has admitted that the record in this appeal does not contain complete documents**…..". Footnote 14 page 7 BPAI states, For example, appellant admits in his response Response of March 17, 1998 (page 9) that "only a few of the DtBP relevant block 2 has been included…… as Exhibits 3, 4 and 7."

Appellant's Full on record statement is, "Factually, there are 13 major sections in the Technology, of which only a miniscule part, with only a few pages of DtBP relevant Block 2 (out of 13 blocks) has been included in this interference as Exhibits 3, 4 and 7. The DtBP relevant portion of the disclosure would equate to less than 3.85% of the total if measured by its portion of total."

Page 7 in 2nd full sentence, second part
BPAI continues, "and has further directed attention to other documents in the file of United States Patent No. 5,321, 157…..". and suggests that because they are directed to another process they are not relevant to this matter.

Appellant responds, It was precisely because of very similar core issues of the "on sale bar" that Examiner was directed to this USPTO in-house reference. If BPAI checked out this reference with impartial fervor its direct relevancy on the on-sale issue would be plainly evident. Examiner made factual errors which he placed on record when he finally examined this issue after multiple early suggestions and requests by appellant. These factual Examiner errors were addressed by appellant on page 6 of Appellants Reply Brief.

Indeed if BPAI applied the "snowflake theory" BPAI uses above, then none of the multitude of citations BPAI attempts to use would be applicable because from BPAI's own judgement standards they do "not appear to directly or indirectly involve known dialkyl peroxides……."

Page 7 in 2nd full sentence, third part
BPAI continues " as well as alludes to documents in his possession as being pertinent to the issue of whether the invention claimed in this application was on-sale."

Appellant states that this is false allegation, suggestive of adversarial grandstanding and repeats from above that Appellant has in fact provided all relevant as well as much totally irrelevant materials because of the request/s of Examiner. Nothing of relevance or pertinence was withheld.

Page 10 From start
Redox attributed statements are taken out of context and improperly juxtapositioned for "a negative implication"?

The "relatively small" aspect of DtBP which BPAI takes out of context than compares by example to a citation wherein a small experimental B is

added to an existing "on sale" A, the combination which has been judged as not experimental.

The factually important and central issue is that both the relatively small DtBP (the BPAI small experimental B ?) and the entirety of the Field (the BPAI analogous A ?) are both experimental. With both components experimental there is no relationship between Redox to BPAI citation.

Specifics of DtBP production in the scheme of the 13 Blocks of the Redox EG Process is small and low in priority.

See Part IV Item 6 and

See Part VI Exhibit "5" and Exhibit "4".

The only critical aspect of DtBP production was that it not be a "show stopper" which might otherwise doom the entire EG project.

Page 10 note 19

ARCO errs, Redox is not "appellant's wholly owned corporation".

Page 12-13

Appellant has used poorly phrased terminology in Kollar Declaration ¶ 7. There is some confusion derived from appellants lack of differentiation, by not being specific enough. The key confusion derives from where the "DtBP embodiment" is present. Apart from these proceedings the "DtBP embodiment" is present only in Disclosure Documents not in any agreements, either confidential or disclosure, as may have been interpreted from appellants poor characterization.

The purpose of these references are to draw a direct line from the earliest record of Appellant's invention of the DtBP directly to ARCO and to provide legal documentations for each step and show what was placed in ARCO's hand by Redox namely the DtBP invention and have BPAI declare an interference. **Exhibit "3"** is comprised of two parts, one part with the DtBP invention content and the second with dated portions of the Definite Agreement, which are clearly not the same.

Disclosure agreements have as their essential component the basis and conditions for providing the Disclosure Documents.

The [DtBP] invention was incorporated in the "disclosure agreement of Nov. 2, 1979" but as a separate Disclosure Document. This Disclosure Document contained the [DtBP] invention material. This same [DtBP] invention material was also incorporated in several other documents to draw that line directly to ARCO.

Page 13
There is a plethora of BPAI confusion embedded here. See directly above and see the chronology presented in detail on page 27 above which are appropriately referenced.

Page 14 from beginning
There is also no evidence that Celanese has possession of this document. This document was and is the property of Redox and in the possession of Redox.

See Part VIII items 3 and 4.

Page 15 2nd full paragraph
There is also no evidence that Celanese has possession of this document. This document was and is the property of Redox and in the possession of Redox.

See Part VIII items 3 and 4.

Page 16
BPAI should note that cited reference Exhibit "5" is powerful substantiation of the many elements of the experimental aspects of progressing the science, the science embedded in the Field and the experimental science in the DtBP embodiment, which BPAI chooses to ignore and mischaracterize.

See Part VI EXPERIMENTATION EVIDENCE in REQUEST FOR INTERFERENCE in Exhibit "5" and

See Part IV EXPERIMENTAL-SCIENTIFIC EXPERIMENTION entire subpart "6".

Page 16 2nd last paragraph

BPAI is technically wrong, methanol and ethanol are not alkylating alcohols in this reaction. For correct information and interpretation,

See Part VI EXPERIMENTATION EVIDENCE in REQUEST FOR INTERFERENCE in Exhibit "5" paragraph 4.

Page 17 last sentence

There is no evidence that Celanese has control of this partial document. All information and material was and is the property of Redox and in the possession of Redox.

See Part VIII items 3 and 4.

Page 22 3rd paragraph

There is evidence on the earliest record which shows that BPAI is incorrect factually and interpretively. If BPAI was impartial in their scrutiny they would have observed the obvious, that Redox did obtain 4 US Patents in the Field as shown in the first papers filed in the Request for Interference.

See Part VI EXPERIMENTATION EVIDENCE in REQUEST FOR INTERFERENCE in Exhibit "B" paragraph 3.

Redox has maintained material not ready for patenting as confidential work in progress awaiting funding and priority, not as trade secrets.

See Part VII SCOPE and NATURE of the INNOVATION EFFORT Item 2,

See Part VII 6th to 8th paragraph,

See Part IV Item 6 and

See Part VI Exhibit "4" 4th paragraph, Exhibit "5" 2nd and 4th paragraph.

Page 23 1st full sentence

BPAI statements "contrary to the interaction of the parties" are fatally flawed and can only be based on absence of knowledge about general commodity chemical innovation.

See Part III Primer - Commodity Chemical Innovation

Page 26 2nd paragraph

There is evidence on the earliest record which shows that BPAI is incorrect factually and interpretively. If BPAI was impartial in their

scrutiny they would have observed the obvious, that Redox did obtain 4 US Patents in the Field as shown in the first papers filed in the Request for Interference.

See Part VI EXPERIMENTATION EVIDENCE in REQUEST FOR INTERFERENCE in Exhibit "B" paragraph 3.

Redox has maintained material not ready for patenting as confidential work in progress awaiting funding and priority, not as trade secrets.

See Part VII SCOPE and NATURE of the INNOVATION EFFORT Item 2,

See Part VII 6th to 8th paragraph,

See Part IV Item 6 and

See Part VI Exhibit "4" 4th paragraph, Exhibit "5" 2nd and 4th paragraph.

Page 27 1st full paragraph from
"We presume from the record…." Presumption is incorrect.

There was no Celanese solicitation by Redox. A two paragraph item appeared in the Chementator section of the October 1979 issue of "Chemical Engineering" a monthly, from which Celanese sought out Redox and instantly requested a disclosure of the embryonic Redox EG technology, which led to the October 23, 1979 secrecy agreement etc., etc.

Celanese interest was intense based on the facts that they were producers and "experts" into most material aspects of the original Redox I EG, from methanol, and EG and subsequently from methanol, formaldehyde and EG for Redox II EG.

Page 28 1st paragraph
BPAI presumption is WRONG. The true "essence" is that Celanese would progress the Redox EG Field for 4 to 5, but possibly up to 7 years before scientific progress for a first plant was achieved. This is a thoroughly thought out effort of future expectations by a very well experienced corporation and the equally innovation experienced appellant.

For the many great fallacies in BPAI contentions, examine with care the hypothetical BPAI presents.

See Page 32 2nd paragraph

See Part VIII Item 1.(b) on "deemed it necessary".

There is a vast amount of additional content in BPAI's "scale-up to commercial production" phrase than BPAI can imagine.

See Part VIII Item 1 on "commercialize".

See Part III Primer For Commodity Chemical Innovation

This is not a hundred or thousand pound batch of a pharmaceutical which even if ruined is inconsequential. There is a little more content even in the BPAI incorrectly modified phrase " to the extent that Celanese deemed it necessary" for commodity innovation.

Page 28 last paragraph

BPAI is 100% WRONG.

See Part II for full details of BPAI errors.

JK CHECK CHECK JK CHECK CHECK Celanese

Page 30 note 29

Find ARCO PETITION comments on record ARCO LIED

Page 31 last sentence

It is a license earned from financial, manpower, technical inputs and expertise contributions for experimentally progressing the Redox EG Field.

See Part VIII Item 1 on "commercialize".

Page 32 2nd paragraph

Wrong. Celanese earned a license in the Field and did not have rights to the BPAI characterized "commercialize" or "use" embodiments of DtBP independent of those defined in ¶ 1.1 "The term Field shall mean processes for the manufacture of ethylene glycol (EG) involving a series of steps as follows:…."

BPAI assumptions are wrong. All information and material was and is the property of Redox and in the possession of Redox. Celanese earned certain select rights in the Field. Said rights are in total control of Redox.

See Part VIII Item 3

See Part VI Exhibit "B" paragraph 3

See Part IV Item 4

Take the hypothetical BPAI suggested situation that Celanese "independently chooses" to assert the "right to use and operate" in the Field. Celanese would be taking incomprehensibly idiotic and enormous risk of first plant failure, from literally thousands of experimentally unanswered questions, which based on experience would have entailed a first plant cost of about $150-200 million and a startup risk that could have probably exceeded $200-300 million because of that lack of a reasonable amount of technical risk lowering experimental information and data (the basis of the Definite Agreement).

See Part III Primer - Commodity Chemical Innovation.

Two ultimate outcomes are possible, an extremely probable first plant failure or an extremely unlikely first plant success. What are the pros and cons of such BPAI hypothetical.

1. Plant failure. Probable cost of from $ 400-500 million.
2. Plant success. Cost probably at $ 250-350 million versus for a Definite Agreement cost of about $ 200 million.
3. Plant SUCCESS for CELANESE
   a. Celanese loses territorial exclusivity otherwise earned
   b. And loses all cross licensing royalties otherwise earned
   c. creates extra Redox licensing opportunities in N. America
4. Plant SUCCESS for REDOX
   a. achieves Redox EG innovation, the incidental goal of the Definite Agreement with above Celanese forfeited benefits for Redox and no royalties for Celanese from Redox plants

Where is the logic in this hypothetical? With either plant success or failure, Celanese loses. Can anyone ever attribute to another such idiocy? I think not.

Page 33 1st paragraph

BPAI states, "There is no evidence in the record which establishes whether Celanese did in fact maintain in confidence.....after termination of the agreement."

Since the Magna Carta, the Bill of Rights and the Constitution of the United States of America, a legal obligation has been assumed to be in compliance unless evidence to the contrary. The negative in BPAI's "no evidence" evokes adversarial guilt premised on the always unprovable negative. The USA does not accept such untenable presumptions of the unprovable.

See Part VIII Item 4 BPAI's adversarial "negative presentations" and out of "context"

Said Redox disclosure to ARCO was not under confidentiality obligation to Celanese.

Page 33 2nd paragraph
BPAI is WRONG. If BPAI was impartial in their scrutiny they would have observed the obvious, that Redox did obtain 4 US Patents in the Field as shown in the first papers filed in the Request for Interference.

See Part VI in Exhibit "B" paragraph 3.

BPAI inferences are wrong. Redox has maintained rights and material not ready for patenting as confidential work in progress awaiting funding and priority, not as trade secrets.

All information and material was and is the property of Redox and in the possession of Redox. Celanese earned certain select rights in the Field. Said rights are in total control of Redox.

See Part VIII Item 3

See Part VI Exhibit "B" paragraph 3

See Part IV Item 4

Page 34 started paragraph
BPAI takes out of context and then compromises its objectivity when it fixates on the term "commercial" which is clearly incidental to the progressing of the science of the Field and of DtBP, to the exclusion of progress of the science. Further, it is stated that the pilot plant operation "of DtBP" should "be examined" for the furtherance of progress of the Field, even though DtBP had an immense amount of further experimental work that was still required. Three simple, basic, batch

reactions demonstrating two specific features in a first reduction to practice shown in Exhibit "5" hardly constitute something ready for commercial use. Significant amount of experimentation is absolutely required after examination. Read the entire paragraph for its context and recognize that it was prepared for technical content and not for legal interpretation.

Exhibit "5" states "Commercial production of DtBP, a high priced specialty chemical, from i-butane in a pilot plant operation should be examined as a means of financing a portion of the pilot plant operations for the EG process."

Page 34 1st full paragraph
BPAI characterization "trade secrets"
Redox has maintained material not ready for patenting as confidential work in progress awaiting funding and priority, not as trade secrets.
See Part VII Item 2,
See Part VII 6th to 8th paragraph,
See Part IV Item 6 and
See Part VI Exhibit "4" 4th paragraph, Exhibit "5" 2nd and 4th paragraph.

Page 34 BPAI PART IV
Just about every BPAI citation in this section is not applicable by the evidence on record. Most are likely inspired by BPAI lack of understanding of commodity chemical innovation.
See Part III Primer.

BPAI is confused about the term "Commercial Phase". BPAI misinterprets the Definite Agreement by failing to recognize the incidental nature of BPAI used "commercial". Citations are raised which are derivative to these BPAI mischaracterizations and rendered them irrelevant. BPAI missed or ignores many points by lack of balanced impartial scrutiny.

Page 34 BPAI Part IV
Legal reference irrelevant, none of the cited documents falls within the "undisputedly was a 'sale' in a common law sense". Everything was "earned" in the progress of the science in the Field.

Page 35 2nd paragraph
BPAI attempts by association to link Redox via "joint development", which is non experimental, to a sale and thereby inferentially confuse an otherwise clear issue.

Joint development may carry many non-experimental interpretations. Clearly a joint development in marketing carries with it no implication of scientific experimentation. A joint commercial development, on a process already having achieved innovation and eliminated all technical risks, carries with it no implication of scientific experimentation in said development. Similarly, a joint venture development in production carries with it no implication of scientific experimentation. Indeed many, probably most types of joint developments carry with them no implication whatsoever of scientific endeavor or experimentation.

Joint chemical R&D with an experimental development component is in the legal sense very different than a general non experimental joint development as used in Caveney, supra to manufacture therefore or to any joint development involved therewith, or Brasseler, 182 F.3d at 890, 51 USPQ2d at 1472 citing Buildex Inc. v Kason Indus., Inc, 849 F.2d 1461, 7 USPQ2d 1325, 1328(Fed Cir. 1988).

Redox characterization of the Definitive Agreement as a Joint Development and Licensing Agreement is simply a shorten description of the agreement. The repetitive use of the term R&D alone and with further experimental efforts and the multitude of phrases associated with the R&D term in the Definite Agreement clearly defines its nature as experimental.

Page 35 last paragraph onto page 36
None of these instruments, terms etc. 'Sale' elements are present in any Redox document.

Page 36 2nd paragraph
The record shows a simple cooperative effort which **earns** for both parties rights from those experimental efforts which progress the science in the Field. The evidence on record clearly shows the absence of a sale.

Further on "sale is presumed to be commercial"

The intent and facts embedded in the Definite Agreement prove beyond any doubt that experimentation is the purpose of the agreement and that commercialization is incidental to the objectives of progressing the multi reaction step Redox EG which defines the Field.

The burden " for the purpose of experimentation and not of commercial nature" is clearly established from many on record documents, as is the showing "that the activity was 'substantially for purposes of experimentation'."

Onto p37
Clearly there is a requirement for further experimentation for both DtBP and the entire Redox EG Field which are listed as obligations on both parties and the simple stark practical reality that if all of the experimental components of innovation are not complete there can be no incidental commercialization.

BPAI alleged "buyer" if such term were applied to Celanese did not have the authority to use the invention commercially without the duty to experiment. This is embedded as obligations to Redox under the Definite Agreement as well as the harsh realities of chemical history cited in "failed first commercial plants" and the attendant heavy suffering therefrom. Without recognizing it, this citation applied to Celanese or to any similar breakthrough chemical technology poses a chicken or egg query about which comes first for those not experienced in commodity chemical innovation.

Factually, one cannot commercialize without a research and development experimentation phase in a commodity chemical innovation, most especially for a multi reaction step complex innovation as the Redox EG. For those experienced in commodity chemical such as both parties to the Definite Agreement, there is no chicken or egg first query. The first plant is first and foremost an experimental component which on successful resolution becomes a commercial plant.

See Part III Channelview EG first plant.

The first plant is the ugly gosling turning into a swan ("commercialization")or dying for some unknown reason/s. Take the short cut and kill gosling. You cannot get to commercialization until you tend and resolve the experimental unknowns in the first plant. Commercialization is incidental to the experimental nature of the innovation process and is also the ultimate objective of the US Constitution under Article.I. Section.8..

Page 39 1st full paragraph
Neither the embodiment or the Field was on 'sale'

Page 39 Part BPAI V
The evidence on record proves the absolute contrary. Correct knowledge about key factual errors of BPAI along with the focused material of Parts I through VII constitute a higher level of absolute proof that the Definite Agreement and all actions of Appellant are altruistic and follow the mandates of the Constitution of the United States under Article.I. Section.8. "…….Progress the Science……." There is no sale.

See Page 32 2nd paragraph on page 43 See from start of page 44.

See Part III Primer For Commodity Chemical Innovation

See Part I EARNED v SOLD (on-sale), 4a to 4g for Celanese experimental cooperative obligation to contribute to the advancement of the Field.

See Part II PAYMENTS TO REDOX are EXPERIMENTAL OBLIGATION

The Definite Agreement is clearly about experimental innovation with an incidental commercial element, which cannot be achieved by the BPAI alleged right to commercialize and use. See above Onto Page 37

Page 40 last paragraph
On the issue of the Board reversal of the rejection on the evidence of record involving ARCO. BPAI comments "does not settle the issue……Redox did in fact make a firm, commercial offer to sell…..." is prejudicial, adversarial and may be an evasive technique to defend an indefensible position of the Examiner. Settling an issue that has never existed is an impossibility as it is impossible to prove a negative.

Using simple logic, the most likely scenario, based on the evidence of the ARCO Protest wherein ARCO lied about the characterization of a disclosure fee as being a sale, it is quite obvious that if any real

evidence of such a sale or offer to sell was made to ARCO in written or orally corroborative form, ARCO would have in a heartbeat presented such "truthful evidence" in the Protest Petition.

See Part VIII Item 4 BPAI's adversarial "negative presentations" and out of "context"

CELANESE

Page 41 2nd paragraph

BPAI alledged "….. two commercialization "rights" conveyed by the agreement…."

Appellant responds that Celanese earned rights from the experimental obligation and purpose of the Definite Agreement which did have an incidental purpose commercialize exactly similar to the incidental purpose of the Constitution of the United States under Article.I. Section.8. "To promote the Progress of Science…"

See Part I EARNED v SOLD (on-sale)

See Part II PAYMENTS TO REDOX are EXPERIMENTAL OBLIGATION

See Part VIII Item 1 RESPONSE TO OFT REPEATED BPAI "WORDS & PHRASES"

Page 42 started 1st paragraph

BPAI's alledged limited "right" to commercialize would not have covered the embodiment of claim 1, which further was never on sale as evidenced by on record documents.

See above Page 32 2nd paragraph response

See Part I EARNED v SOLD (on-sale)

See Part II PAYMENTS TO REDOX are EXPERIMENTAL OBLIGATION

See Part VIII Item 1 RESPONSE TO OFT REPEATED BPAI "WORDS & PHRASES"

Page 42 1st full paragraph

See directly above. Further, there is also no evidence that Celanese has possession of this written material. All information and material was and is the property of Redox and in the possession of Redox.

See Part VIII items 3 and 4.

Page 42 2nd full paragraph

Wrong conclusions from wrong assumptions. See the above 2 sections why this statement is correct.

Page 42 3rd full paragraph onto page 43
BPAI's statement "directed to optimization of process parameters with respect to a competitive market advantage over a competitor" is but a extremely limited, simplistic portion and only one of the numerous components of experimental effort involved in a major commodity chemical breakthrough innovation.

See Part III
See Definite Agreement
See Part IV
See Part VII
See Part VIII Item 1

BPAI's further statement "…. There was no experimentation on the basic process……..(…… Exhibit 3)……(Exhibit 5)….", is, I regret to say, plain ignorance or worse. This is absolutely WRONG, not interpretively wrong, just plain WRONG on its face. Exhibit 5 is in fact 100% experimental in both the Field and in the claimed 1 embodiment of DtBP.

See Part VI EXPERIMENTATION EVIDENCE in REQUEST FOR INTERFERENCE
Under Exhibit "5" and
Under Exhibit "4" 3rd paragraph places Exhibit 3 in perspective as the design basis derived from the first reduction to practice without a solvent in Exhibit "2"

Page 43 1st full paragraph
BPAI states "(……..acceptance of the purchase order……..is no question that the sale was commercial rather than experimental in character.")
Factually from on record evidence, there is no purchase order and no sale. The character is 100% experimental and BPAI misinterprets "commercial" in the Definite Agreement which is incidental to the agreement and indeed is its final goal as it is for the US Constitution Article.I. Section.8. "To promote the Progress of Science…"

See Part I
See Part II
See Part IV
See Part VIII Item 1

Page 43 last paragraph through to page 45
Indeed the claimed invention had been reduced to practice albeit very rudimentary. However the invention was still experimental and simply not "ready for patenting" based on the fact that it was very incomplete and its priority in the Field was far below other more important efforts in the Field.

From Definite Agreement ¶1.1 under B. and C. is shown that DtBP was one of numerous potentially useful peroxides and/or free radical generators. Specifics of DtBP production in the scheme of the 13 Blocks of the Redox EG Process is small and low in priority. The only critical aspect of DtBP production was that it not be a "show stopper" which might otherwise doom the entire EG project, the Field.
See Part III

One can argue legally but without scientific merit that the invention was ready for patenting after the first reduction to practice in Exhibit "1A" which at that point did not possess much utility, or after the first reduction to practice without a solvent shown in Exhibit "3" which at that point had some utility, or nearly 3 ½ years later when two practical advances in DtBP production were made. When was it ready for patenting?

It was not ready for patenting at any of those times for a number of reasons. First each of these cited Exhibits and reductions to practice of 4 to 5 important factors in the Field were limited in scope to a single experiment each, each of which incrementally added to the necessary objective of progressing the science of DtBP production for progressing the science of the Field, EG.

This DtBP experimental information was not ready for patenting from either a priority or technical consideration. Indeed, the examination of DtBP production was never even attempted by Celanese in over 3 years of cooperative effort, because it was far down the list of technical and manpower and funding priorities.

The scientific knowledge imbedded in these single experiments are impressive but are far from being reasonably complete and far from establishing required usefulness in the Field. For complete details,

See Part VII 6th to 8th paragraph,

See Part IV Item 6

See Part VI Exhibit 4 from 3rd paragraph and
Exhibit 5 2nd and 4th paragraph.

Page 45 1st paragraph

The on record evidence from the earliest Request for Interference proves there was never a sale and that BPAI contention of prima facie finding in the Definite Agreement is wrong both factually and in law.

See Part I EARNED v SOLD (on-sale)

See Part II PAYMENTS TO REDOX are EXPERIMENTAL OBLIGATION

The burden should not apply but is accepted to inform and enlighten the BPAI on reality and the their Constitute mandate.

See Part III PRIMER - COMMODITY CHEMICAL INNOVATION

See Photocopy of Original Article. I. Section.8. Paper 25 Exhibit 7

Page 45 2nd paragraph through page 46

The facts of experimentation derived from the Definite Agreement and on record evidence is so compelling that one wonder upon which planet is the BPAI residing.

See Part VI EXPERIMENTATION EVIDENCE in REQUEST FOR INTERFERENCE

See Part IV EXPERIMENTAL - SCIENTIFIC EXPERIMENTION

See Part VIII Item 1. BPAI's "commercialize"

See Part III PRIMER - COMMODITY CHEMICAL INNOVATION

What could be more "purely chemical science experimentation"? Does the BPAI understand science? The Definite Agreement is a pure "EXPERIMENTAL" joint research and development agreement.

See Part I Item 4a through 4g

See Part II PAYMENTS TO REDOX are EXPERIMENTAL OBLIGATION

See Part VI EXPERIMENTATION EVIDENCE in REQUEST FOR INTERFERENCE

See Part IV EXPERIMENTAL - SCIENTIFIC EXPERIMENTION

See Part VIII Item 1. BPAI's "commercialize"

See Part III PRIMER - COMMODITY CHEMICAL INNOVATION

Celanese had the highest intent as manifest from their expert background and from their vigorous, logical pursuit in a strategic, core business defined in the Definite Agreement.

See Page 27 above The chronology of the Definite Agreement

Celanese had the highest obligation to experiment as evinced by on record, freely and aggressively undertaken and assumed obligations, documentation and by the common sense of their intent which did bring Celanese aggressively to the Definite Agreement. Celanese had no interest per se in the DtBP on its own merits, it was equivalent to a catalyst. Celanese interest in [DtBP] only went as far as it was required to produce EG.

See Part I Item 4a through 4g

See Page 27 above The chronology of the Definite Agreement

BPAI's hypothetical are preposterous and are based upon unreasonable, self destructive actions by reasonable people, which is an unreasonable assumption. Topic previously covered.

See Page 32 2nd paragraph response on page 43 of this document.

Experimentation, vast amount of experimentation by both parties is ignored by BPAI from evidence and reasonable inferences therefrom but are simply ignored by BPAI which flies in the face of the on record material.

See Part I Item 4a through 4g

See Part II PAYMENTS TO REDOX are EXPERIMENTAL OBLIGATION

See Part VI EXPERIMENTATION EVIDENCE in REQUEST FOR INTERFERENCE

See Part IV EXPERIMENTAL - SCIENTIFIC EXPERIMENTION

See Part VIII Item 1. BPAI's "commercialize"

See Part III PRIMER - COMMODITY CHEMICAL INNOVATION

"Commercialization" is the incidental purpose of the Definite Agreement as it is of Article I Section 8 of the US Constitution.

Even in the wildest BPAI hypothetical, Celanese could not use the [DtBP] embodiment independent of the Field. To do so would be self destructive for Celanese.

See Page 32 2nd paragraph response on page 43 of this document.

BPAI Queries and Redox Responses

Responses are made to BPAI's section VIII comments and/or queries as presented from page 48 on.

We note for the record that every request made of us by Examiner has been met fully and expeditiously, even though the basis for the clarifying requested additional information was always at hand but either ignored or not gathered together for comprehension of the issue/s under consideration.

BPAI Query

What presentations and representations, oral and written, were made by Redox to ARCO during the "solicitation period" with respect to the "complete detail (of) the full status of the Redox EG " Technology" (Response of March 17 , 1998; page 6), which would have included embodiments of claimed process encompassed by claim 1 as seen from the phrase "a process for conversion of methanol to ethylene glycol ;including catalysts used in the process" in the ARCO Confidentiality Agreement, which led to this agreement?

Redox Response

ACC personnel having been involved in three commodity chemical innovations (see Primer on Commodity Chemical Innovation), all derived from appellants inventions of PO-tBA, PO-Styrene and EG via acetoxylation, understood what the last page of the ACC Confidence Agreement indicated and what was required to progress the Redox EG as manifest in USP 4,337,371, USP 4,393,252, USP 4,414,084, USP 4,412,085 to a successful innovation conclusion.

The above were the presentations, representations, oral or written, made by Redox to ARCO during the "solicitation period" with respect to the "complete detail (of) the full status of the Redox EG " Technology" (Response of "BPAI error" March 17, 1998 should be January 17, 1998; page 6), which would have included embodiments of claimed process encompassed by claim 1 as seen from the phrase "a process for conversion of methanol

to ethylene glycol including catalysts used in the process" in the ARCO Confidentiality Agreement, which led to this agreement?

BPAI Query
What presentations and representations, oral and written, were made by Redox to ARCO during the "solicitation period" with respect to the "rights" that Redox asserted in the "Technology" and the range of purchase, assignment and/or licensing options which Redox offered to ARCO.

Redox Response
There were never any presentations or representations, oral or written, made by Redox to ARCO during the "solicitation period" with respect to the "rights" that Redox asserted in the "Technology" and the range of purchase, assignment and/or licensing options which Redox offered to ARCO. The only discussions were about progressing the Redox EG for mutual benefit as detailed previously by shared risk-earned reward.

BPAI Query

What was the range of purchase, assignment and/or licensing options parties intended to be encompassed in the phrase "[ARCO] desires to make an offer to (Redox) to acquire the Technology" in the ARCO Confidentiality Agreement?

Redox Response

It is still impossible for Redox to know "[ARCO] desires to make an offer to (Redox) to acquire the Technology". This has been stated innumerable times in many formats. Perhaps, BPAI should read the record or ask Examiner who on record seems to believe that he has the ability to divine others thoughts. See Paper No. 10 pages 4, 5 and 6.

Based on the evidence of the ARCO Protest wherein, ARCO lied about the characterization of a disclosure fee as being a sale, it is quite obvious that if any real evidence of such a sale or offer to sell was made to ARCO in written or orally corroborative form, ARCO would have in a heartbeat presented such "truthful evidence" in the Protest Petition. Don't you think!, if you were ARCO caught with your hand in Redox's cookie jar?

BPAI Query

What presentations and representations, oral and written, were made by Redox to ARCO subsequent to the ARCO Confidentiality Agreement, which led to the Redox/ARCO Secrecy Agreement?

Redox Response

This issue was fully explained. ARCO reopen discussions with Redox, which led to the Secrecy Agreement related to Activities in Australia. See Paper No. 10 page 10.

BPAI Request

Appellant must provide a copy of page 2 of the Redox/ARCO Secrecy Agreement.

Redox Response

Appellant will provide a copy of page 2 of the Redox/ARCO Secrecy Agreement missing due to feeder type photocopier miss. Submitted as Paper 25 Exhibit 8.

BPAI Request

Appellant must provide a copy of any disclosure made to ARCO that is not of record with respect to embodiments of the claimed invention encompassed by claim 1, including those portions of the document section submitted to ARCO entitled "Alkylation Of t-Butyl Hydroperoxide With Isobutylene" (Kollar Declaration Exhibit 7) which appellant admits to be incomplete, and the disclosure of the "Technology" which includes embodiments of the claimed process encompassed by claim 1 that is contained in the "Report" and other "Information" pursuant to ¶ 1 of the Redox/ARCO Secrecy Agreement.

Redox Response

There is no pertinent disclosure material beyond that furnished. Incomplete refers to the EG process which contains 13 Blocks (sections) of which Block 2 is the only one relevant.

BPAI Query

What presentations and representations, oral and written, were made by Redox to Celanese during the "solicitation period" with respect to the "Technology", and embodiments of the claimed invention encompassed by claim 1 prior to signing the Celanese Definitive Agreement?

Redox Response

There was no Celanese solicitation by Redox. A two paragraph item appeared in the Chementator section of the October 1979 issue of "Chemical Engineering" monthly from which Celanese sought out Redox and instantly requested a disclosure of the embryonic Redox EG technology, which led to the October 23, 1979 secrecy agreement etc., etc.

See Page 27 above The chronology of the Definite Agreement

BPAI Request

Appellant must provide copies of the "Redox EG Process disclosure agreement," the October 23, 1979 secrecy agreement' and the "July 1, 1980 Heads of Agreement" (see *7.1 of the Celanese Definitive Agreement).

Redox Response

"October 23, 1979 secrecy agreement" and "July 1, 1980 Heads of Agreement with a lead page of a Draft are being provided as Paper 25 Exhibit 2 and 6. The "Redox EG Process disclosure agreement," of Nov. 2, 1979 may not have existed as such or if it did, it cannot be found. However, we will provide letters and communications for the extremely fast developing and aggressively pursued interest by Celanese from which the essence and dates of makes clear. These are contained in two letters and are provided as Paper 25 Exhibit 3 and 4.

BPAI Request

Appellant must provide a copy of any disclosure made to Celanese that is not of record with respect to embodiments of the claimed invention encompassed by claim 1, including those portions of the document submitted to Celanese entitled "Alkylation Of t-Butyl Hydroperoxide With Isobutylene " (Kollar Declaration Exhibit 3)and "Redox II Design and Economics Update" (Kollar Declaration Exhibit 4) which appellant admits to be incomplete.

Redox Response

There is no pertinent disclosure beyond that furnished. Celanese our innovation partner in this endeavor had translated the Redox information from Exhibit 3, which compiled relevant data and the first manifestation of the first reduction to practice of the invention in the absence of a solvent, into a design basis as has been noted in the prior pages of this filing. Incomplete refers to the EG process which contains 13 Blocks (sections) of which Block 2 is the only one relevant.

BPAI Query

Where there are other disclosures made to Celanese during the R&D Phase" in the manner of the document entitled "REDOX TECHNOLOGIES INCORPORATED January 21, 1983 Meeting" (Kollar Declaration Exhibit 5)?

Redox Response

Absolutely, but none of the others were related to DtBP.

Clearly, the first part of ¶2.6 best describes the content and obligations of these meeting which were regularly scheduled for several days, usually at Corpus Christi at Celanese Facilities with at least 8 up to 25 various chemical professionals at about 3 month intervals.

The Definite Agreement required a host of obligations on both parties to progress the EG technology, including obligations on Redox shown in The Definitive Agreement in ¶2.1, ¶2.5, ¶2.6, ¶2.8 and ¶4.1,

¶2.1 Redox R&D cooperation,

¶2.5 Redox's own R&D effort,

¶2.6 Redox effort and activity
exchange progress reports
correspond, discuss and exchange information
meetings, all for R&D Phase.

¶2.8 up to 30 days per year of consultation by Kollar for Celanese in the Field "without any further compensation by Celanese to Redox or Kollar"

¶4.1 cooperative Redox efforts in patent matters.

The object of these many meetings was clearly to progress the science of the Redox EG Field as an ongoing activity and to plan for future activities for both parties.

BPAI Query

What presentations and representations, oral and written, were made by Redox to Celanese prior to the Celanese Definitive Agreement with respect to the "rights" that Redox asserted in the "Technology" and the range of purchase, assignment and/or licensing options which Redox offered to Celanese?

Redox Response

The Definite Agreement is the entire ball of wax.

BPAI Query

What presentations and representation, oral and written, were made by Redox to Celanese with respect to the apparently separate processes referred to ¶6.1 of the Celanese Definitive Agreement which would appear to include embodiments of the claimed invention encompassed by claim 1 separate and apart from the "Technology" (see above pp33-34)

Redox Response

None. This appears to be standard legalese to cover ones back end if some inadvertent technical coverage mistake were made such as if Redox II was not discovered by Appellant until after the Definite Agreement.

BPAI Query

Did Celanese exercised the option granted in ¶6.1?

Redox Response

No.

BPAI Query

It reasonably appears from ¶2.7(f), ¶4.4 and ¶3.1 (last sentence) of the Celanese Definitive Agreement that Redox had entered into 'secrecy and non-use" agreements with "third parties" prior to signing this agreement, which in view of Redox's normal course of business would

indicate a "disclosure" of the "Technology" had been made to the third parties. Indeed, interaction with third parties with respect to the "Technology" was provided for in ¶4 of the ARCO Confidentiality Agreement. None of the "secrecy and non-use agreements" entered into by Redox with parties other than Celanese and ARCO are of the record.

Redox Response

There are no relevant documents. Much of BPAI reasonable is standard legal boilerplate inclusions.

BPAI Request

Appellant must provide copies of any or all such agreements.

Redox Response

There are no relevant documents to present to BPAI.

BPAI Query

What presentations and representations, oral and written, were made by Redox to third parties with respect to the "Technology" which would have included embodiments of the claimed process encompassed by claim 1, which led to these agreements?

Redox Response

None

BPAI Query

What presentations and representations, oral and written, were made by Redox to third parties with respect to the "rights" that Redox asserted in the "Technology" and the range of purchase, assignment and/or licensing options which Redox offered to the third parties, which led to these agreements?

Redox Response

None

BPAI Query

Was an unpatented product or another embodiment of a process falling within the claimed process encompassed by claim 1 offered for sale in the United States prior to the critical date, that is, December 5, 1994?

Redox Response

No

Attached are 8 Exhibits as defined herein.

Exhibit 1 AIC Award - Impartial Testament for Appellant's expertise.
Exhibit 2 Oct. 23, 1979 Confidence Agreement between Celanese and Redox
Exhibit 3 Oct. 25, 1979 Letter Pilat to Kollar
Exhibit 4 Oct. 29, 1979 Letter (from carbon copy) Kollar to Pilat
Exhibit 5 May 7, 1980 Meeting to establish a Definite Agreement
Exhibit 6 July 15, 1980 Draft Heads of Agreement, first page only, and July 1, 1980 Heads of Agreement signed July 31.
Exhibit 7 Dec. 22, 1980 and Jan. 7, 1981 Definite Agreement signed
Exhibit 8 Missing page 2 from Redox/ARCO Secrecy Agreement

Administrative Patent Judges Warren, Owens and Robinson:

Appellant reiterates his request for an EXPIDITED response in accordance with 37 CFR 1.607(b) "special dispatch" and advises the Board that serious discussions concerning progressing the Redox EG technology in the U.S.A. have already been seriously degraded by the uncertainty and prolonged USPTO delays in this DtBP matter. Further delays may irrevocably damage the progress of this science which USPTO and BPAI is Constitutionally obligated to promote.

Applicant respectfully submits this Rehearing Response to the Board of Patent Appeals and Interferences for its informed, fair and impartial consideration. Applicant has made a real prima facie showing of being the first to invent as required by 37 CFR § 1.608 and request that the Board declare an interference and declare Applicant as senior party.

Respectfully submitted,

John Kollar 8/30/00

JOHN KOLLAR
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